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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/576,880 | 04/21/2006 | Yoon-Seob Eom | P-0773 | 5874 |
| 34610 7590 03/19/2008 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200 | | | | |
| EXAMINER | | | | |
| RAHIM, AZIM | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 3744 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/576,880

Applicant(s)

EOM ET AL.

Examiner

AZIM RAHIM

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/21/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CI/CD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 4/21/2006

DETAILED ACTION***Double Patenting***

Comment [F1]: The claim language appears to be fine. Why is that this application is not rejected under the doctrine of double patenting over case No. 10/576,580?

1. Claim 1 of this application conflict with claim 1 of Application No. 10/576,580. 37

CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claim 1 rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent Publication No. 2007/0056305 to Eom et al. This is a double patenting rejection.

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Regarding claim 1, Eom teach all the limitations of claim 1 and also teaches that a centrifugal fan is the same as a cross flow fan [0039 lines 1-3 and 0040].

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Liang (US 3,666,169).

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Regarding claim 1, Liang teaches a window type air conditioner (fig. 1) comprising: a case (4) of which one side is positioned at an indoor side (2) and another side is positioned at an outdoor side (3); an indoor heat exchanger (12) mounted inside the case (explicitly shown) positioned at the indoor side (explicitly shown) thus to be heat-exchanged with the indoor air; an indoor centrifugal fan (21) opposite to the indoor heat exchanger (explicitly shown) for generating a blowing force so that the indoor air can pass through the indoor heat exchanger (explicitly shown by arrows illustrating airflow); an outdoor heat exchanger (13a) mounted inside the case (explicitly shown) positioned at the outdoor side thus to be heat-exchanged with the outdoor air (explicitly shown); and an outdoor centrifugal fan (22) opposite to the outdoor heat exchanger (explicitly shown) for blowing the outdoor air by a centrifugal force.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang et al (US 2001/0035021).

Regarding claims 1 and 5, Kang et al. teach a window type air conditioner (fig. 1) comprising: a case (90) of which one side is positioned at an indoor side (explicitly shown) and another side is positioned at an outdoor side (explicitly shown); an indoor heat exchanger (40) mounted inside the case (explicitly shown) positioned at the indoor side (explicitly shown) thus to be heat-exchanged with the indoor air; an indoor centrifugal fan (60) opposite to the indoor heat exchanger (explicitly shown) for generating a blowing force so that the indoor air can pass through the indoor heat exchanger; an outdoor heat exchanger (80) mounted inside the case (explicitly shown) positioned at the outdoor side (explicitly shown) thus to be heat-exchanged with the outdoor air; and an outdoor fan (70) opposite to the outdoor heat exchanger (explicitly shown) and a condensing water dispersing unit [0068 lines 18-23] mounted at the outdoor centrifugal fan for dispersing condensing water collected at the lower surface of the case to the outdoor heat exchanger [0068 lines 18-23].

Kang et al. fail to explicitly teach the limitation of providing an outdoor centrifugal fan for blowing the outdoor air by a centrifugal force.

The general concept of providing an outdoor centrifugal fan inside a window type air conditioner falls within the realm of common knowledge as obvious mechanical expedient and is illustrated by Kang et al. which teach the limitation of providing a centrifugal fan (60), and one having ordinary skill in the art would have been motivated to include the use of an outdoor

centrifugal fan in order to advantageously direct blown air in multiple directions, thus increasing ventilation efficiency.

Regarding claim 2, Kang et al. teach the limitation of the outdoor air suction port being respectively formed at both lateral surfaces of the case (92) positioned at the outdoor side (explicitly shown), and the outdoor air discharge port (area of condenser 80) is formed at the rear surface of the case (explicitly shown in fig. 1).

Regarding claim 3, Kang et al. teach the limitation of the outdoor fan being installed in a shroud (75) mounted inside the case positioned at the indoor side (explicitly shown), and the shroud is provided with an air guide (76) for guiding air blown from the outdoor centrifugal fan to the outdoor heat exchanger.

Regarding claim 4, Kang et al. teach the limitation of the outdoor centrifugal fan being composed of: a hub (center portion of fan 60) connected to a driving motor (55) by a rotational shaft (the shaft attached to motor 55); blades (blades between the hub and ring 66) formed at the outer side of the hub in a circumferential direction (explicitly shown) with the same interval (explicitly shown) for generating a blowing force; and a supporting ring (66) mounted between the blades for supporting the blades.

Regarding claims 6-8, Kang et al. teach all the limitations of the claimed invention, but fail to explicitly teach the limitation of the condensing water dispersing unit being composed of a

dispersion ring connected to the outdoor fan thus to be rotated together for dispersing the condensing water, wherein the dispersion ring is connected to a hub of the outdoor centrifugal fan by a supporting ring, and wherein the dispersing ring is respectively connected to the blades of the outdoor centrifugal fan by the supporting ring thus to form a ring shape.

Kang et al. does teach the limitation of providing a dispersion ring (72) being connected to the outdoor fan (70) thus to be rotated together for dispersing the condensing water [0068 lines 18-23], wherein the dispersion ring is connected to a hub (center portion of fan 70) of the outdoor fan.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the centrifugal fan including the supporting ring inside the dispersion ring in order to provide added support to the blades, thus extending the life of the fan.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AZIM RAHIM whose telephone number is (571) 270-1998. The examiner can normally be reached on Monday - Thursday 7am - 3:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR 3/13/2008

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/Frantz, F. Jules/
Supervisory Patent Examiner, Art Unit 3744